

REMARKS

In the Office Action of January 4, 2005, the Examiner rejected claims 37-73 and 86-111 and withdrew claims 74-85 from consideration. This amendment cancels claims 74-85 and amends claims 37, 39, 47, 50-52, 56, 65, 71-73, 86, 89, 90, 93, 100, and 107. Reconsideration of this application is therefore respectfully requested.

Rejections—35 U.S.C. § 112

The Office rejected claims 88 and 107-111 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement.

With respect to claim 88, Applicants assert that Figure 6 and the accompanying text (page 13, line 1 through page 14, line 14) fully support claim 88, in view of amended parent claim 86. Applicants assert that claim 88, as amended, meets all the requirements of section 112 and respectfully request the removal of this rejection.

Applicants have amended claim 107. Support for the amendment can be found from page 13, line 1 to page 14, line 14. Applicants assert that claims 107-111, as amended, meet all the requirements of section 112 and respectfully request the removal of this rejection.

The Office rejected claims 39-43, 51-52, 54, 56, 65-73, 86, 89, and 93-111 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended claims 37, 39, 47, 50-52, 56, 65, 71-73, 86, 89, 90, 93, 100, and 107 and respectfully request the removal of this rejection.

Rejections—Boutros reference

The Office rejected claims 47-49, 90-93, 95-98, 107, and 110 under 35 U.S.C. § 102(e) as being anticipated by Boutros (U.S. Patent 6,635,507). Applicants respectfully traverse this rejection.

With respect to claims 47, 90, 93, and 107, Boutros fails to disclose an integral semiconductor body with two regions, with one region forming a solar cell and another region forming a support structure. While the Office refers to Fig 8 of Boutros, Fig 8 merely shows a single region with solar cells and a bypass diode. As stated in Col. 7, lines 51-53 and Col. 7, lines 62-65, dice line 822 does not separate two regions laterally spaced apart. Instead, dice line 822 separates one solar cell assembly from another, with contact 816 placed “near the edge of the cell”. Thus, Fig. 8 of Boutros merely discloses a bypass diode placed above a solar cell assembly.

In addition, Boutros specifically recites that the bottom layer of the bypass diode has the opposite polarity of the top layer of the solar cell. For example, see Figure 10, where the second layer has a second type of dopant (step 1000) and the third layer has a first type of dopant (step 1002). The third layer is the bottom layer of the diode (step 1004). Also see column 2, lines 26 through 36, where Boutros describes the third layer (the bottom layer of the diode) having the opposite polarity of the second layer (which is the top layer of the solar cell). In contrast, claims 47 and 90 of the present invention, as amended, recites the top layer of the solar cell and the bottom layer of the bypass diode both having the first polarity.

Applicants assert that Boutros fails to anticipate claims 47-49, 90-93, 95-98, 107, and 110 and respectfully request the removal of this rejection.

Rejections—JP '397 Reference

The Office states that Applicant's arguments of 10/18/2004 were not persuasive.

Applicants previously argued that the bypass diode in JP '397 is not "integral to a subcell."

The Office responded that a common layer 205A is sufficient to satisfy the "integral" requirement. Applicants have amended the claims to indicate that "the bypass device and the subcell have identical sequence of layers with substantially the same thickness and form an integral semiconductor body." The device disclosed in JP '397 does not show a bypass device with the same structure as a subcell. Therefore, JP '397 fails to disclose any of the claims of the present invention. Applicants respectfully request the removal of this rejection.

CONCLUSION

If there are any additional charges concerning this response, please charge to White & Case LLP Deposit Account 23-1703.

A favorable consideration of the present amendment together with the original application is respectfully requested.

Respectfully submitted,

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By:


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